

CLAIMS

1. A positioning jig device for a vehicle body frame,
comprising:

5 a positioning jig (20) for positioning and fixing a
vehicle body frame (12);

10 a positioning robot (22) for holding an end of said
positioning jig (20), supplying said positioning jig (20) to
a working position for said vehicle body frame (12), and
positioning said vehicle body frame (12) in a desired
attitude; and

15 a positioning jig holder mechanism (24) for movably
holding said positioning jig (20), said positioning jig
holder mechanism (24) being disposed in said working
position and having an engaging member (172) which is
detachably engageable with another end of said positioning
jig (20) whose one end is held by said positioning robot
(22).

20 2. A positioning jig device according to claim 1,
wherein said positioning jig (20) has a securing unit (50)
for positioning and fixing said vehicle body frame (12).

25 3. A positioning jig device according to claim 1,
wherein said positioning jig (20) has a recess (118)
engageable by said engaging member (172) of said positioning
jig holder mechanism (24).

4. A positioning jig device according to claim 1,
wherein said positioning robot (22) comprises a multiaxis
robot (22) for setting said vehicle frame (12) to the
desired attitude while the other end of said positioning jig
5 (20) is engaging said engaging member (172) of said
positioning jig holder mechanism (24).

5. A positioning jig device according to claim 1,
wherein said positioning jig holder mechanism (24) has a
10 support (134) by which said engaging member (172) is
swingably supported and which supports said engaging member
(172) for displacement toward the other end of said
positioning jig (20).

15 6. A positioning jig device according to claim 5,
wherein said support (134) supports said engaging member
(172) for rotation about an axis along which said engaging
member (172) is displaceable.

20 7. A positioning jig device according to claim 5,
wherein said support (134) has an attitude securing member
(140) for securing the attitude with respect to the other
end of said positioning jig (20).

25 8. A positioning jig device according to claim 5,
wherein said engaging member (172) is supported by said
support (134) for displacement toward the other end of said

positioning jig (20) through a resilient member (166).

9. A positioning jig device according to claim 5,
wherein said engaging member (172) is actuatable by an
actuating mechanism (170) for engagement with the other end
of said positioning jig (20).

10. A positioning jig device according to claim 1,
including a welding robot (26) disposed in said working
position for welding said vehicle body frame (12) which is
positioned and fixed by said positioning jig (20).